

Archimedean

Issue № 9

...finally it's arrived!

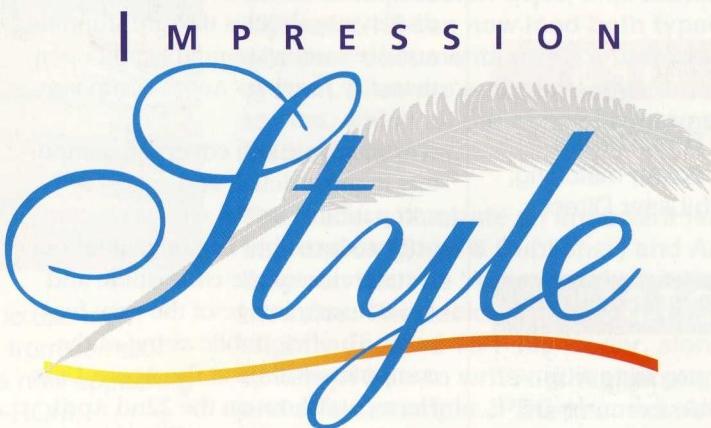
I M P R E S S I O N



...plus more about



...and



...the world of multimedia



...plus

24-bit colour
what exactly does
it mean?

WHATS NEW AT THE
ACORN USER
SPRING SHOW



Computer Concepts Ltd

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Production

This issue of The Archimedean was created entirely in Impression Style, using an A5000 with 8MB RAM. All proofing and layout checks were output on a BJC-600. Final negative film was created from PostScript output files by a Linotronic 300 imagesetter. Separated using a test version of Impression Publisher.

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How much would you pay for a desktop publishing package?

This issue is meant to coincide with the release of Impression Publisher, the latest and greatest version of Impression. The other major event due around now is the release of a new range of computers from Acorn.

If you've recently been looking enviously at some of the capabilities of other computers, PCs and Macs, then look no more. Acorn now have a machine every bit as good as the best AND they are competitively priced. To sum the computers up, they are just about twice as fast as any previous Acorn computer, can take absolutely tons of RAM, have display capabilities that are stunning and are more expandable and open than any previous Acorn computer.

A future issue will cover the computers in more detail, and cover compatibility issues with respect to our products, but basically all of our recent releases are compatible and can take advantage of the new features. The first public airing of the computers will be at the Acorn User Harrogate show on the 22nd April. For many this show will also be the first chance to see the two new versions of Impression - Style and Publisher. Style will be available, and has been for some time now, but it's unlikely that we'll be able to supply Publisher upgrades over the counter since the administration of the upgrades is too great - these will have to be supplied from our Gaddesden base, but we will be demonstrating the program and taking orders for upgrades on the stand.

We will also be selling the new Eagle multi-media card at the show - this is covered in more detail elsewhere in this issue. Also about this time it's

likely that reviews of the product will begin to appear in other magazines. The Eagle is the first product that allows easy and quick !Replay movies to be created, thanks in no small part to the Eidos real-time compression software.

We recently received an interesting letter from a customer. He'd just bought himself a PC after having used Impression on an Archimedes for a while, and said that he liked Impression so much he thought it would be a waste not to use this perfectly good program on his PC. He asked if we had a PC version, or failing that could we convert it to his PC for him, and asked how much this would cost. We quoted him £850,000. I wonder if he'll order it ?

Of course, this is probably more funny to us than to him. There's no real reason why our customers should understand the complexities involved - but we can say that it's pretty unlikely that we will convert Impression to the PC. His best bet would be to get a copy of Quark Xpress for Windows. This is a very powerful package and not unlike Impression in many ways - a bargain at £800.

Apparently there's going to be a version of Xpress for the new Apple PowerPC machines - and that is rumoured to have an RRP of £999 a copy. In fact the upgrade from version 3.1 to 3.3 of Xpress costs more than that of a new copy of Impression Publisher. So there are still more than a few good reasons why Acorn machines are worth it.

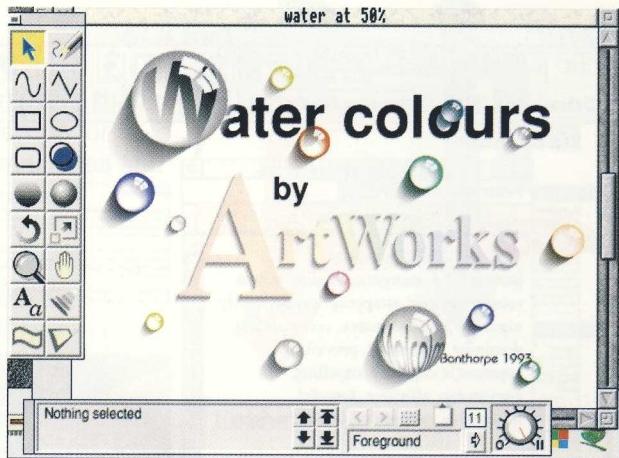
That's all for now, or as an Apple Newton would say, Hats maul a cow.

Solid Gold

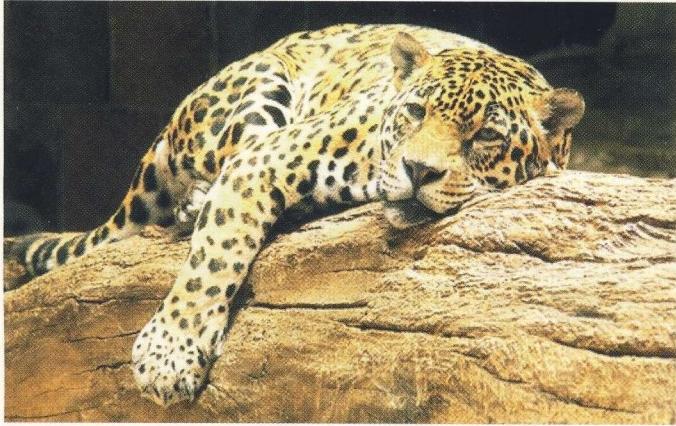
New since the last Archimedean, even though it has been covered in other magazines, is ColourCard Gold, an enhanced version of our ColourCard graphics card. It offers a number of new features.

Using new software modules licensed from Acorn, it now allows 16-bit desktop modes offering over 32,000 colours on-screen. Also 16-bit colour Replay movie playback on the desktop is possible, and all the control software is now included on ROM.

Even though it is a significant advance over the original, the price remains the same at £249.00 + p&p + VAT (£299.62 inc.).



JPEG & PhotoCD loaders for Impression and ArtWorks



Using the PhotoCD loader it is possible to use high quality pictures, such as the one above, from some of the newer photographic libraries that are now appearing and publishing their photographs on CD-ROM.

JPEG (Joint Photographic Experts Group) files and PhotoCD files are two of the leading industry standard formats for 24-bit colour pictures.

Users of Impression Style, Impression Publisher and ArtWorks 1.5 can now load both types of file directly into their documents using a new graphics loader system. Files are automatically converted to 24-bit sprites, which all the above programs can handle, display and print.

The loaders illustrate an important feature of both Impression (Style & Publisher) and ArtWorks, in that they can both be 'upgraded' by adding extra modules. The package also includes a Clear file and slightly updated TIFF file loader, along with technical details of how to write additional graphics loaders, and a few example JPEG pictures. All the loaders are available together and cost £39.00 +VAT (£45.82 inc.)

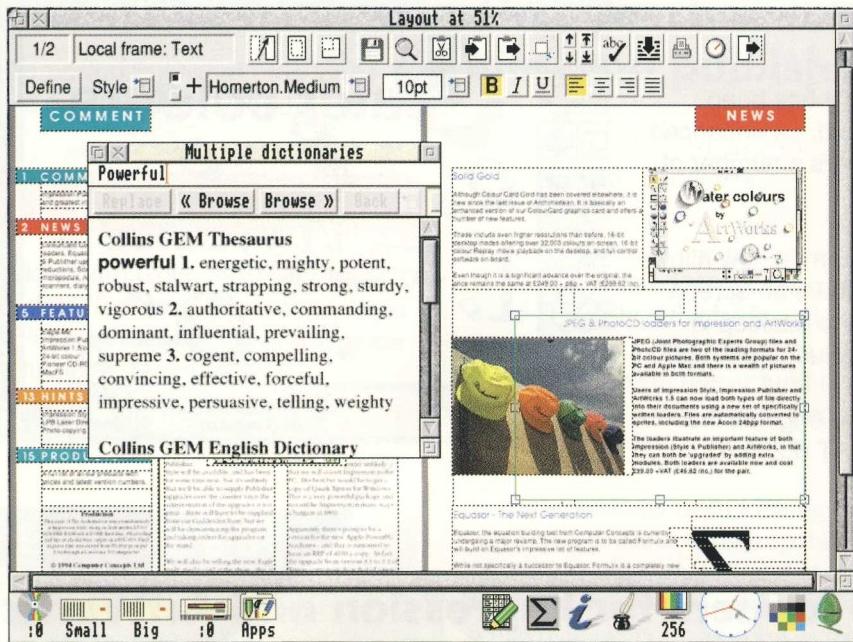
Equasor - The Next Generation

Equasor, the equation building tool from Computer Concepts is currently undergoing a major revamp. The new program is to be called Formulix and will build on Equasor's impressive list of features.

While not specifically a successor to Equasor, Formulix is a completely new design and a completely new product. It is likely to supersede Equasor for those wanting a more powerful mathematical formula creator and editor. It will use Object Linking & Embedding (OLE) and will therefore integrate with Impression Style and Publisher. It will also operate as a stand-alone package.

Completion time is expected to be around the third quarter of 1994 and we hope to show the software at Acorn World 94. More details on price and availability will be featured in a future issue of Archimedean.





Impression upgrades time limits

Impression Style is available now and has in fact shipped over 3500 copies to date. Demand for Style is very high and readers are reminded that the £29.00 + p&p + VAT (£37.60 inc.) upgrade offer is only open until June 17th 1994.

As well as offering many benefits over Impression Junior and Impression II, Impression Style comes complete with a suite of complimentary applications including WordWorks, Equasor and TableMate.

Impression Publisher (see page 7) is likely to be even more popular so we would

urge readers to order their upgrade as soon as possible. The £29.00 (+VAT) upgrade offer will end on July 22nd 1994. We also offer upgrades from other word processors to either Style (for £70 + VAT) or Publisher (for £120 + VAT). A full list of the different upgrade options is available on request. Site licence upgrades are available for £100 + VAT. Please state which version (ie. network or stand alone) when ordering.

Printer reductions

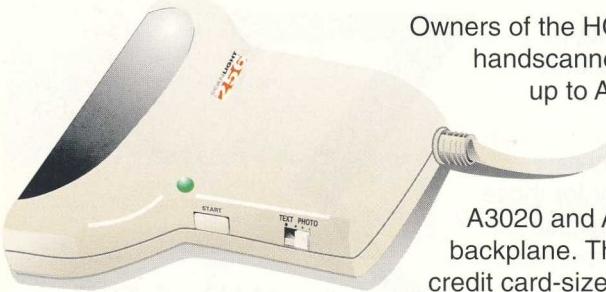
Due to falling costs as well as the high demand, Computer Concepts are pleased to announce further price reductions in their range of black and white and colour inkjet printers.

The prices of three of our most popular models, including the BJ-200 and BJ-230 have been lowered making them even greater value for money. The new Canon BJC-600 is especially good value and now provides full colour, A4 printing for less than £500 (plus p&p and VAT).

All printers are now supplied with the latest RISC OS 3 TurboDrivers, making them some of the fastest printers available for Acorn RISC computers. See the back page for the latest prices of all our printers.



ScanLight256 MicroPodule



Owners of the HCCS Ultimate MicroPodule system can now add a 256 grey-scale handscanner to their system. High quality pictures can be grabbed from any size up to A6 and dropped directly into Impression or other suitable programs.

Podule space is often a limiting factor when thinking of expanding your computer. On more recent machines, such as the A3010, A3020 and A4000, expansion is particularly difficult due to the lack of a full size backplane. The HCCS Ultimate MicroPodule system overcomes this by using credit card-sized micro-podules that fit onto a special card called a multipodule.

The ScanLight256 micro-podule comes complete with a hand-held 256 grey-scale scanner, plus the latest version of our ScanLight Plus software. It is available now from Computer Concepts and costs £229.00 (plus p&p and VAT). The multipodule can be purchased from HCCS or any of their dealers.

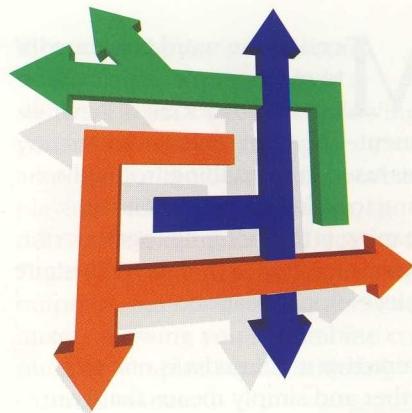
Easy access

There are now versions of Impression II, Impression Style and ArtWorks that are fully compatible with AUN (Acorn Universal Network). Site licences for networks generally work out cheaper than those for stand-alone machines and users of such systems do not require dongles. We would therefore urge potential users to pursue this option.

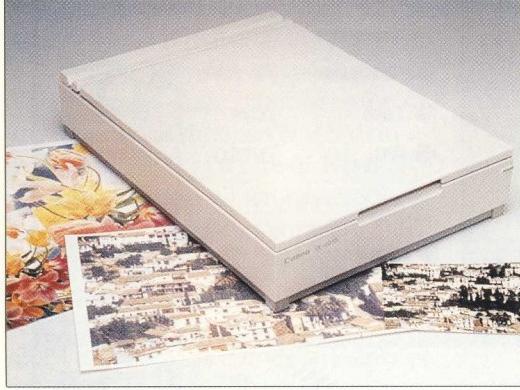
Impression II (Network) v. 2.21, Impression Style (Network) and ArtWorks (Network) version 1.5 will work on the following network hardware:-

Econet, Acorn Ethernet 3, Atomwide Ethernet, Oak Ethernet (including ClassROM), Beebug Ethernet, Digital Services Ethernet, Nexus networked (virtual Econet).

ArtWorks, Style and Publisher all include changes so that they will work in Internet mode as well as Econet mode. These changes now make it fully compatible with Acorn Access and TCP/IP/NFS systems.



Flat-bed Colour Scanner



We can now confirm that we will be bringing out a high-quality, professional scanner capable of capturing full 24-bit colour images. The addition of a colour scanner to Computer Concepts' range means that you can now purchase all the necessary equipment from us to produce full colour publishing on the Acorn platform.

The scanner will be available from the third quarter of this year and will be on show for the first time at the Acorn World show in October. No price has yet been fixed but more details will be included in a future issue of Archimedean.

Diary dates

Computer Concepts will be attending the following events so, as they say, book now to avoid disappointment.

Note: all details are subject to change and we recommend checking before you leave!

- | | |
|---------------|--|
| 5th June | Dealer Open Day hosted by Pres at the Lakeside Country Club, Frimley Green, Camberley, Surrey. 10-4pm Tel: 0276 472046 |
| 10-11th June | Lindis Computer Carnival, in Norwich. Friday 3-6pm is open to educationists, Saturday to anyone. Tel: 0986 85476 |
| 25th June | Dealer Open Day hosted by MicroTest, Technology House, Normandy Way, Bodmin, Cornwall. 10-4pm Tel: 0208 73171 |
| 30th June | Dealer Open Day hosted by Depson Business Systems, 65 Aylesbury Street, Bletchley, Milton Keynes. 10-4pm Tel: 0908 271500 |
| 1st-2nd July | Access IT Conference and Exhibition in Warwick. Education event, ticket only, details from Acorn. 0223 254254. |
| 8th/9th July | Data Exchange, Exchange House, Wood Street, Port Sunlight, Merseyside. Friday 8th 5-8pm and Sat 9th 10-4pm Tel: 051 644 7770 |
| 28th-30th Oct | Acorn World at Wembley Conference Centre. This is the biggest show of the year so expect lots of new products and previews. |

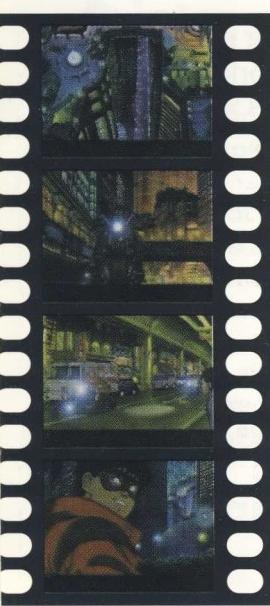


Please let us know immediately if there is a mistake in your name/address on this issue, or if you have received duplicate copies of Archimedean. This will help us to speed up delivery and keep costs down.

Mention the word 'multimedia' to most people and you'll be faced with a look of bewilderment. The term multimedia is (mis)used in everything from advertising to video games, but its true meaning is the bringing together of two or more types of data to illustrate a piece of information.

Interactive multimedia is one step further and simply means that you can change and affect the way and/or order in which different pieces of information are portrayed.

Current multimedia technology concentrates on two of the five senses - ie. vision and hearing. Audio data can be presented through music, speech and sound effects, whilst visual data can include text and still and moving pictures. Research is well on its way to offering us touch and taste, and smell will no doubt follow in the not too distant future.

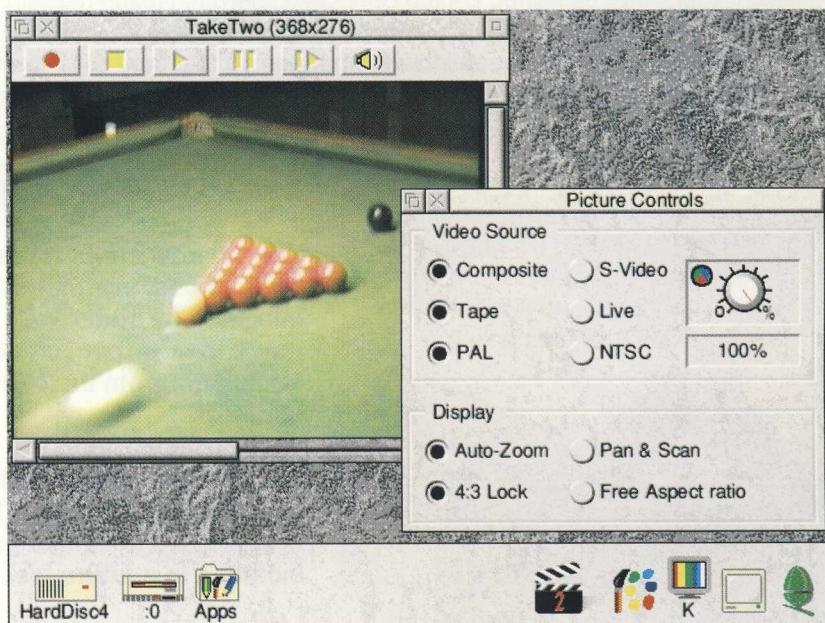
On paper, the idea of multimedia sounds interesting, but it's not until you actually get to experience it that the true value of this new technology comes across. Imagine opening an encyclopedia filled with the usual lists of fact and figures. You've read a section about the Australian Kookaburra and looked at a rather

uninformative picture of it but how can you appreciate how the bird acts in its natural habitat or what its infamous call might sound like?

Using multimedia technology (the Eagle M2 card plus an additional, third party authoring package such as Longman Logotron's Magpie) you could, for example, point at the pic-

Lights, Cameras, Action!

The Eagle M2 card provides all the features to help create your own, professional multimedia presentations. We take a look at the latest collaboration between Computer Concepts and Wild Vision.



ture and change it to a film of the bird flying around. Point somewhere else and you could get it to squawk like only a Kookaburra can. Multimedia is only limited by the available resources (ie. the information, video, sound etc.) and your imagination.

Now the brief lesson on multimedia is over, I'm sure you're all asking questions like 'Doesn't this require phenomenal computer power and powerful and expensive hardware and software?'. The answer of course is 'yes'.

You do need phenomenal computer power and Acorn RISC computers are ideally suited for this purpose. You also require powerful hardware and software and the Eagle M2 offers this. You don't however, have to spend a fortune ...

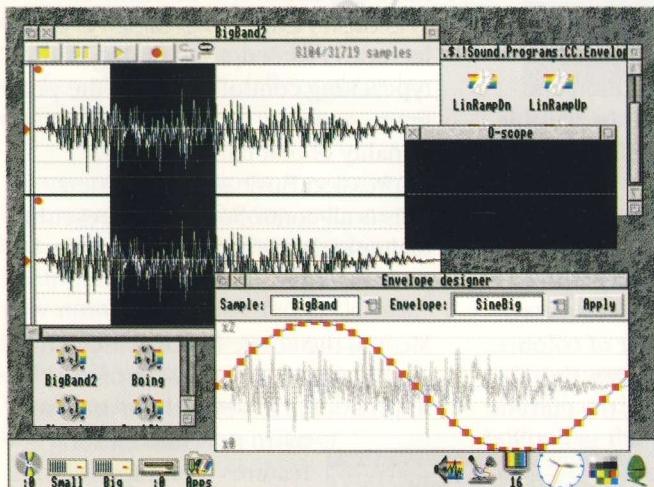
The Eagle M2

The Eagle M2 (or Multi Media) expansion card has been designed to provide all the tools necessary to create your own, professional multimedia presentations. It offers both still and moving picture (ie. video) capture as well as the ability to sample and playback sound. For those interested in music, it also has a full specification Midi port on board to control suitable equipment such as keyboards and drum machines.

It really is an 'all in one' package and comes complete with all the necessary software to control the card. There are three main applications in total, each of which covers a different feature such as audio or video. Here is a brief explanation of what applications you get and what each one does.

TakeTwo

This software controls movie capture. The Eagle card can create Acorn Replay compatible movies in two ways. Either the traditional Acorn way, which is to record the movie to hard disc, and then at a later time compress the file, frame by frame to produce the final compressed Replay movie. Not only does this require very large and fast hard discs, but it typically takes between 10 and 25 seconds per frame. This is the way nearly all existing Acorn Replay movies have been created. Alternatively, and uniquely, we also include the Eidos real-time movie compression software. The very latest version of this, (version 2) is now ever better and produces movies that are at least as good, if not better, quality than the Acorn software. The amazing part is that it creates and compresses the movies in real time, so rather than producing files at a rate of 500-600 Kbytes a second which have to be compressed later, this software creates the final Replay compatible movie file as you record - typically at less than 100k second. So not only does this save enormous amounts of hard disc space, but also enormous amounts of time.



Additionally, software is provided so still video images can be digitised instantly from any video source, and saved as sprites for use in other applications. It even supports the new 15-bit and 24-bit colour sprite formats to provide truly 'photographic' results.

ScanLight

This is identical to the software supplied with our range of scanners and therefore provides all the tools necessary for grabbing and manipulating greyscale images. A selection of image enhancement functions provides such features as picture



sharpen, blur, edge detection, noise removal and shadowing. Pictures can also be scaled and/or rotated to any size or angle. The output from ScanLight is ideal for monochrome desktop publishing work or anywhere where you require crisp, greyscale images. 256-grey level sprites are supported to give really clear results.

AudioWorks

Full stereo sound sampling capabilities are offered by the Eagle card and AudioWorks provides a whole host of tools to manipulate your samples. Features include Echo, Filtering and Reverse. A special tool allows you to apply 'envelopes' to sounds to create special effects such as pitch bending and stereo panning. AudioWorks is capable of handling a

vast number of different sample types including Microsoft Wave files and ARMovie soundtracks, offering 16-bit sound editing facilities on the Archimedes for the first time. The Eagle M2 hardware is actually capable of sampling and playing back sound at 12-bit resolution - a major improve-

ment over the Arc's 8-bit sound.

Audio output is provided via a standard 5-pin DIN socket allowing you to connect your computer to an amplifier for the best results - even playing 'old' (ie. 8-bit) sounds, the difference is remarkable. Because the Eagle M2 has both sound input and output, it can be used effectively as a mixer, allowing you to combine computer or sampled sound with any external source.

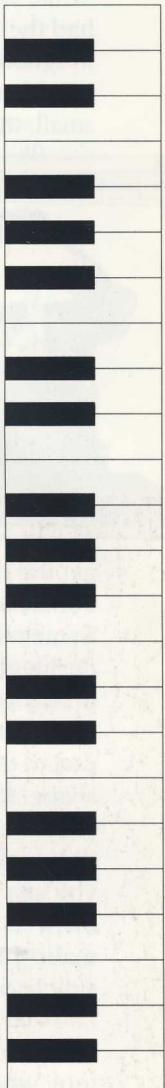
Midi

All necessary control software is provided in ROM on the Eagle M2 board, providing a fully-compatible, Acorn specification Midi port. With a suitable Midi sequencing package (available separately from other third-party developers), you can turn your computer into a professional music making and recording tool.

Standard Midi IN, OUT and THRU ports are provided enabling you to connect up any possible arrangement of Midi hardware such as keyboards and sound generators. The software even allows you to redirect Midi information to the computer's internal sound channels, so that you can run third-party Midi software without the need for expensive music hardware.

The conclusion

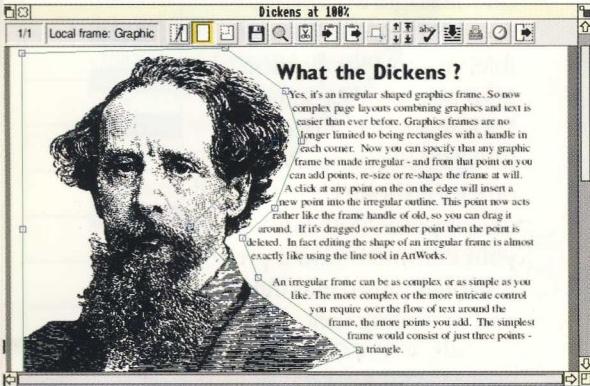
The special bundle price including the Eidos real time video compression software is, £329.00 + p&p + VAT (£393.62 inc). The Eagle M2 is ideal for beginners and professional users alike. It incorporates state-of-the-art software covering each of its areas - movie capture and playback, still frame capture, and audio capture and playback. Multimedia for the masses is here at last - home movies will never be the same again.



Impression Publisher is the most advanced version of Impression that we have developed to date. A very significant step forward over Impression II, it incorporates all the recent changes made in Impression Style and many new features that have been high on every Impression II owners' wish list.

Irregular shaped frames

While earlier versions of Impression had the ability to wrap text around an irregular shaped picture, it was quite a tedious process to insert the many small, transparent, frames required to



get the right repelling shape. With Publisher, you can now just drag the frame outline to be any shape you desire and the text will repel around it. Any graphics inside the frame will be cropped to the irregular frame shape. Rather than having just eight frame handles around the frame, you can now have as many as you like, and make the frame shape as simple or as complex as you like.

This combined with the new graphics tool, which allows the simplest and fastest possible graphics scaling, rotating and panning, means complex page layouts involving graphics are now far easier and quicker than before.

Improved graphics support

Impression is the first mainstream application to support the new Acorn 24-bit sprite format and it means that, at last, the Acorn platform is on a par with PC and Mac machines in this

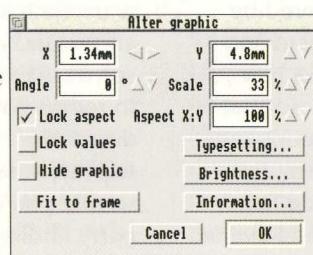
Impression Publisher

The last word in desktop publishing

respect. (Actually if anything it's better, since the quality of 24-bit pictures we can obtain from the colour inkjet printer such as the BJC-600 and 800 is better than you're likely to see from either the Apple Mac or PC).

To support the new 24-bit capability, Impression Publisher supports our new graphics loader system (see News). The package includes a TIFF loader that allows Impression to load this industry standard format that includes just about any form of TIFF available, including Mac and PC variants, compressed or not, and even pre-separated CMYK variants. It's now possible to use a heavyweight application on the Mac, like PhotoShop, to create pre-separated CMYK pictures.

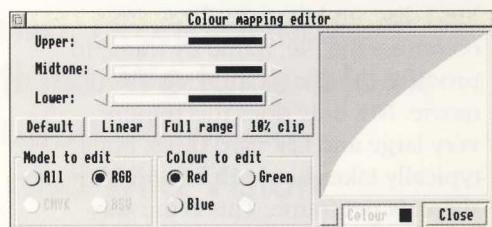
Just drop these on an Impression frame, and then get these separated to a PostScript device.



The Alter Graphic dialogue has three new buttons that provide more information and control over the graphic than ever before.

The Graphic Information dialogue provides information on the type of graphic, its size (both in terms of dimensions, but also file size), number of colours, and most usefully for sprites, the resolution of the image at the current picture scale.

The Colour Map dialogue now makes it possible to alter the brightness and contrast of any picture using a graphic grey or colour map, rather like our ScanLight software. If the image is an RGB or CMYK sprite it even allows the

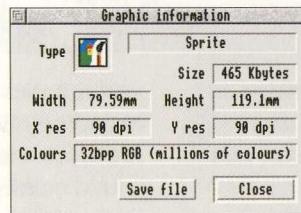


brightness and contrast of the individual colour RGB or CMYK channels to be edited, allowing a certain degree of colour correction. It also allows the creation of duotone images (like greyscale, except the colour can be any two, rather than just black and white). As far as we are aware no other DTP package provides this degree of graphic control.

Finally, for those typesetting or printing via a PostScript printer, we now allow the PostScript halftone-screen to be controlled on a picture by picture basis.

Of course one of the main new features of Publisher over previous versions of Impression is that it now includes PostScript separating and typesetting control built into the program, so it now includes the functionality of that part of the old Impression Business Supplement. This is all controlled via a typesetting dialogue that is available from the print dialogue.

Most of the above features are completely new to any version of Impression. However there are many more new and existing features that Impression II owners will see for the first time, that have appeared in the recently introduced Impression Style word processor. We don't have enough room here to cover things in any detail at all, but we are preparing a full Publisher specification brochure



and we hope to have this available in time for the forthcoming Acorn User Show in Harrogate at the end of April (22nd, 23rd & 24th).

Anyway, here are a few of the other new features that make Impression Publisher *the* tool for DTP on all Acorn 32-bit computers.

• Drag and drop editing

No need to use cut-copy and paste to move sections of text around. You can now just select the area and then drag it directly to where you want to move it.

• New ruler button bar etc

Comprehensive new button bars and tool bars allow direct access to commonly used functions. They also provide a much more direct way of altering text effects and styles. Indeed the info bar shows the current text size, font, justification settings etc. Publisher now also has the concepts of paragraph styles that will automatically apply themselves to whole paragraphs - so now, for example, if you want to change the justification of a paragraph to be centred, you can just click the Centre button on the info bar, or just press F6 the key short-cut. It really couldn't be easier.

• Auto numbering

A new way of numbering sections of text. A variety of numbering schemes is supported. The key point is that as new numbers are inserted or deleted, the existing sections are automatically and instantly re-numbered. Handling large complex numbered lists is now significantly faster.

• Auto-kerning and tracking

Auto-kerning and tracking improve the look of your documents by closing up unwanted gaps between characters in the text.

• Object Linking & Embedding

A quicker more direct system of application integration. Suppose you

want to edit a Drawfile inside an Impression frame. Now simply hold Ctrl and double click on the graphic. This exports the drawfile direct to Draw where you can edit it.

Closing the !Draw window and clicking the save button is all that is needed to send the graphic directly back into the Impression frame. The system is completely open, works with a number of applications such as ArtWorks, Draw, Paint and is likely to be supported by other major third party applications such as Longman Logotron's Eureka spreadsheets.

• Coloured frames

Frame borders can now be coloured in a similar way to frames.

other minor changes that make Impression Publisher more productive and simpler to use. For example master pages now have names, rather than numbers. And, at last, there is a way to create a new master page based on the design of the current master page - in other words if you want to make a slight change to the current master page design this is now easy.

• WordWorks

One of the most significant additions is the inclusion of WordWorks the English dictionary and thesaurus. Fully integrated - this sells for £39 (+VAT) and yet it is included in the £29 upgrade price.

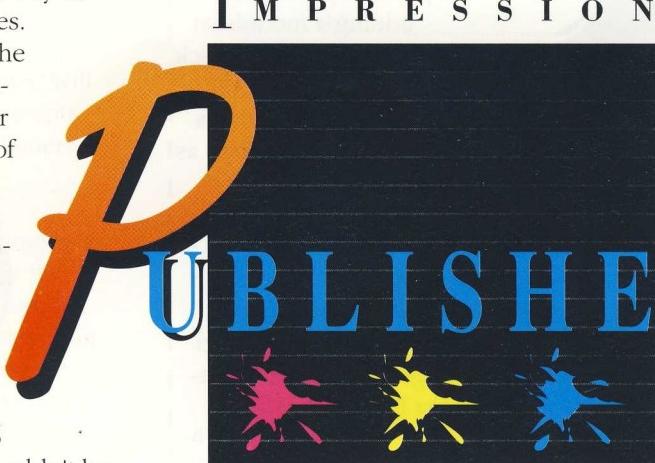
• On-line help

Impression Publisher now includes full on-line help - both the interactive Acorn-style help and full on-line documentation presented as hyper-text pages - rather like Windows help. So if you don't understand how a feature works it's almost certain that you can find the answer quickly and easily using the on-line documentation - without ever having to get the manual out to look it up.

Upgrades

The really crazy part is that if you own Impression II, you get all this for just £29 + £3 p&p + VAT. (£37.60 inc). This is a special offer and the Impression Publisher upgrade price will go up three months after its release. Upgrade details are available on request.

We have already had over 3,500 applications for Impression Style and expect the demand for Impression Publisher to be even higher. We would therefore encourage potential purchasers of Publisher to order upgrades now. Upgrades will be issued on a first come first served basis and it may take us sometime to get through the backlog of orders, so please be patient.



• Bundled applications

To exploit the potential of Object Linking and Embedding (OLE for short) we include Equasor, our Equation building tool, and TableMate - a table creation utility.

• Zoom tool

Not only is there a new button on the button bar that allows a quick way to get at the scale view dialogue, but there is also a direct key short-cut that provides an ArtWorks like drag-zoom. Simply holding down Ctrl and Shift together, and then dragging over any selected area will zoom into that area.

• Named master pages

There are dozens and dozens of



Art Works

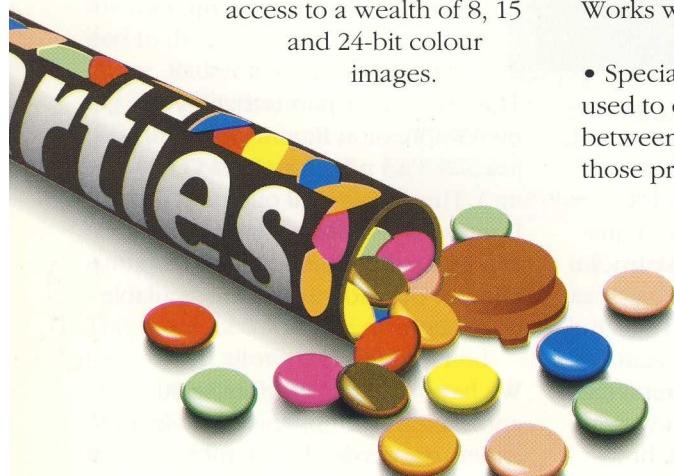
Version 1.5, the latest in full-colour graphics illustration software for Acorn Risc computers

From its launch back in 1991, ArtWorks has become perhaps the most popular and widely used illustration program on the Archimedes. Now in its 3rd release, ArtWorks 1.5 provides one of the most comprehensive and powerful illustration environments on a computer today.



New version 1.5 features include:-

- 15-bit and 24-bit Sprites can be loaded, displayed and manipulated directly in ArtWorks. TIFF (Tag Image File Format) files can also be dropped in documents providing access to a wealth of 8, 15 and 24-bit colour images.



New loaders (available separately) provide access to JPEG and PhotoCD files, giving an even greater source of high-quality, 24-bit images. Both formats are common on PCs and Apple Macs ensuring a vast library of readily available pictures.

- One of the biggest criticisms of previous versions was the time taken to load the program. A 'Quick Start' option causes ArtWorks to load as two modules, rather than the large number it did before. An important feature of ArtWorks is that it can be updated or enhanced purely by changing or adding a module. Turning the 'Quick Start' option off therefore allows ArtWorks to load as before.

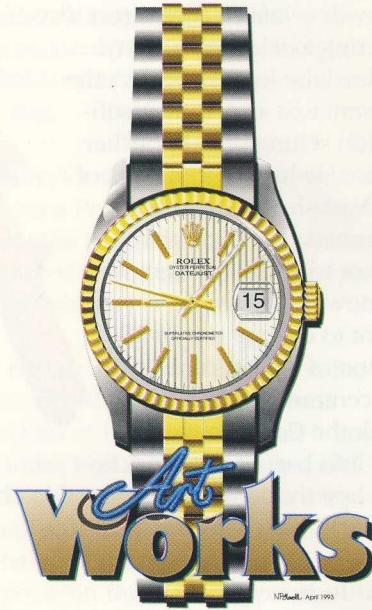
- Text can now be configured to always appear in black, rather than the current colour. Likewise, lines and shapes can be set to default to attribute settings present when ArtWorks was first loaded.
- Special colour tables can now be used to ensure a better match between the colours on screen and those printed out. ArtWorks now gives an even better representation of colours on screen when using this method.

- ArtWorks can now be configured to send page size details to a postscript device before printing. This helps to ensure that pages will fit within the limits of the printer or image-setting equipment. ArtWorks will never attempt to output a page larger than an imagesetter can handle. The image will therefore be cropped first to fit the page size. For those unfamiliar with ArtWorks, you may be

surprised to know that it has always been able to do the following:-

- Full anti-aliasing of drawings
- Infinite undo
- Ultra fast screen redraw
- Graduated fills
- Perspective projections
- Edit text at any angle

ArtWorks 1.5 is available now and will be on show at the forthcoming Acorn User Show at Harrogate. The CD-ROM version will also be on display for the first time and provides all the benefits of ArtWorks 1.5 with the addition of over 200 fonts in both RISC OS 2 and RISC OS 3 format, plus an extensive clip-art library on a single compact disc.



Art Works

Both the 3.5" disc and CD versions of ArtWorks 1.5 cost £169 +VAT (£198.57 inc.) Upgrades to ArtWorks 1.5 are available to all existing owners for £10 +VAT (£11.75 inc.) - just quote your registered serial number. If you wish to upgrade from 3.5" disc version to the CD version, that will cost £29 +VAT (£34.07 inc.).

A CD containing over 700 items of ArtWorks clip art is also available. Dozens of 24-bit pictures are included on the disc for use with Style, Publisher and ArtWorks 1.5. The CD costs £19 +VAT (£22.32 inc.)



Due to the overwhelming response to last year's ArtWorks competition, Computer Concepts have joined forces with Archimedes World to organise an even bigger and better event. The competition is open to anyone who has produced artwork on an Acorn based graphics or drawing program such as ArtWorks, Draw or Vector (*not* sprites or any other bitmaps).

The first prize will be something *really* exciting donated by Archimedes World (to be announced in their May issue) and will go to the best entry chosen by a panel of judges from Computer Concepts and Archimedes World. Nine prizes of a choice of any Computer Concepts software package plus a free subscription to Archimedes World will be awarded to the runners-up.

A special 'Best ArtWorks Entry' will be chosen by Computer Concepts and will win a brand new Pioneer DRM-602X CD ROM drive.

The quality of last year's entries was extremely high which is why we have decided on having two main prizes. We don't envisage awarding the big prizes to the same person. This will help ensure that everyone stands a better chance of winning.

If you've seen any of last year's entries, (the best 700 are on our Clip-Art CD) you might be put off by thinking that only complex pictures stand a chance of winning. This is certainly not the case and points are awarded as much for originality and artistic merit, as they are for technical quality.

Even if you don't win one of the main prizes, all ArtWorks entrants will receive a £10 Computer Concepts voucher plus they will be able to see their work published on a new clip-art CD to be released at the Acorn World Show in October.

The deadline for the competition is 31st July and winners will be notified by the end of August 1994.

The Worldwide Clip Art competition

**Computer Concepts & Archimedes World
Magazine
Clip-Art Competition 1994
Entry Form**

Name:
Address:
.....
.....

Competition rules and conditions:

- 1) Entry is free.
- 2) You must sign and date this form.
- 3) Any drawing/graphics package can be used (sprites are not acceptable), but all entries must be on disc in Drawfile or ArtWorks format. Compressed files in Compression CFS format are acceptable.
- 4) The closing date is 31st July 1994.
- 5) All entries must be your original work and not copied from other sources.
- 6) You assign to Computer Concepts the right to use or modify any or all of your entries in any way that Computer Concepts sees fit.

Please sign this declaration and return it with your entry:

The entries submitted are my own original work and I agree to Computer Concepts using or modifying them as they see fit.

Signed: Dated: 1994

Return this form and your disc to:

Clip-Art Competition,
Computer Concepts Ltd.,
Gaddesden Place,
Hemel Hempstead,
Herts. HP2 6EX.

Please help us by writing your name and address on any disc that you send.



Until recently, support for 24-bit colour has been difficult to incorporate into applications on Acorn computers. It's not that the hardware is incapable of handling such images - 24-bit colour support is governed by software, NOT hardware - it's mainly because of the lack of support in the operating system.

When the Archimedes first came out back in 1987, the need for the ability to manipulate images with lots of colour was not an important issue. Being vector-based, the Draw application was capable of producing pictures with over 16 million colours although this was often ignored as there was no easy way of printing such pictures accurately. Printer drivers only supported 8bpp, producing crude results.

Recent technologies such as PhotoCD have meant that 24-bit colour is becoming more prevalent. Recognising this fact, Acorn have now defined a new Sprite format that supports 24bpp. This in turn, means that developers can now incorporate 24bpp Sprite support into their programs, safe in the knowledge that it will be compatible with other applications and future hardware and operating system support.

It is now recognised that 24-bit colour support is an important feature in any graphic application and Impression Style, Impression Publisher and ArtWorks 1.5 are all capable of utilising 24bpp pictures. TurboDrivers can now produce 24-bit colour output (with suitable printers) to give excellent results on printers such as the Canon BJC-600.

Although it's nice to be able to look at 24-bit pictures in full colour 24-bit screen modes, current Acorn computers that are not capable of offering 24-bit modes, are perfectly capable of reproducing any image using (our own) special dithering techniques. Just look at ArtWorks, Impression

The truth about 24-bit colour

It has always been possible but only recently has it become important.

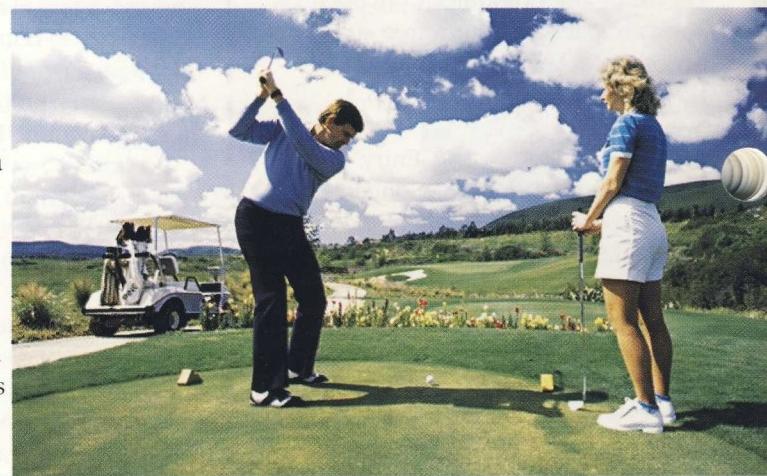
Style or Impression Publisher in an 8bpp mode to see what is possible. It's a common misconception, but you DON'T need 24-bit colour display hardware in order to create, manipulate, or view 24-bit graphics.

New hardware developments however, do mean that full 24-bit colour, on screen, is likely to be possible very soon. VIDC20, the replacement for VIDC10, is capable of producing 24-bit colour at high resolutions, as well as a number of other enhancements.

Computer Concepts' own ColourCard Gold expansion card is available now and provides true 15bpp desktop modes giving results comparable to other computer system's 24bpp modes.

Support for 24-bit colour is all very

well, but unless you have a decent source of 24-bit material, you don't gain much from it. Special loaders to read PhotoCD and JPEG files into ArtWorks, Impression Style and Impression Publisher have just been released, ensuring that the most common 24-bit graphics formats can now be loaded directly. Both PhotoCD and JPEG formats are common on PCs and Apple Macs meaning that



Example 24-bit photo from PhotoCD. Scaled to 150dpi. 900Kbytes

there is now a plentiful supply of high-quality colour images. Of course with PhotoCD it's easy to create your own images.

Future products such as colour, flatbed scanners (see page 4 of the News section) will enable full, 24bpp images to be grabbed for use in documents and art work. PhotoCD provides an inexpensive means of grabbing high-quality scans at only 50 pence per picture when you get your own CDs made.

With this interest in 24-bit colour and the release of full colour applications such as Impression Style, Publisher and ArtWorks 1.5, the future for Acorn RISC computers looks very bright indeed.

24bpp - 24 bits per pixel. Each pixel uses 24 bits of memory to store colour information giving over 16 million (2^{24}) possible colours. Often just called 24-bit.

15bpp - 15 bits per pixel providing over 32,000 (2^{15}) colours.

VIDC10 - The display controller used in current Acorn computers.

VIDC20 - The display controller destined for the 'next generation' of computers.

PhotoCD - Kodak's photos-on-a-CD technology.

JPEG - A powerful graphics compression technique.

The Pioneer DRM-604X and 602X are the ultimate CD-ROM drives

The first CD-ROM drives from Computer Concepts. We now offer 2 variants of this drive. The quadruple speed 604X is not only the fastest CD-ROM drive around, but can also take 6 discs at once. For those that want the ultimate CD-ROM drive this is it. The recently introduced 602X is a double speed version, but otherwise identical to the 604X.



With the ever growing popularity of CD ROMs the ability to access six discs without having to manually swap or fiddle with CD ROMs is not only a time saver, but ideal for network situations where you want to provide access to up to six discs.

Perhaps even more important than the multi-disc ability is the data transfer speeds. CD ROM drives are notoriously slow devices and for large files typically found on CD ROMs this can be very tedious. However, the 604X can provide 600K per second sustained transfer rate (just over this rate has been measured from Acorn and Morley SCSI boards). The 602X provides 300K per second, still twice as fast as traditional CD drives.

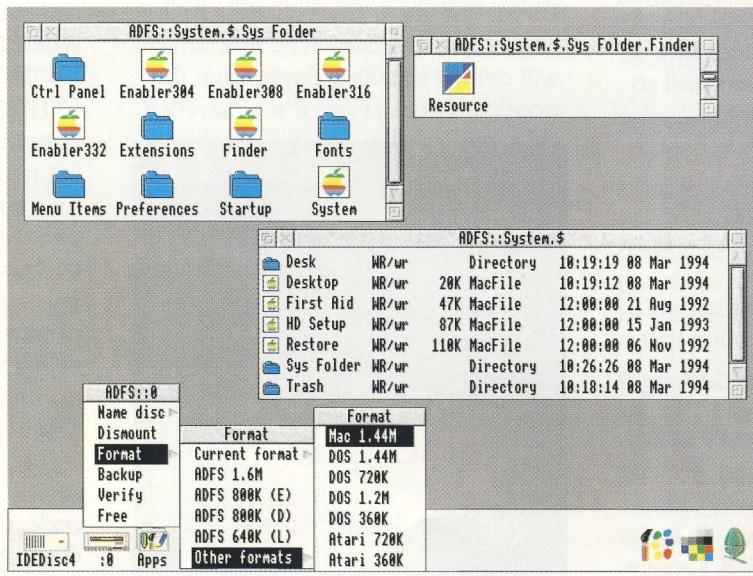
They are, of course, PhotoCD compatible. Indeed by holding six discs you could provide access to 600 ultra-high resolution PhotoCD pictures using just the single unit!

In addition to software for the Acorn platform, the drive comes supplied with Macintosh, DOS and Windows drivers so it can be used with SCSI cards on PCs as well. It therefore makes an ideal choice for a network environment and it functions perfectly well with Windows for Workgroups - again providing group access to up to six discs). The price for the 604X CD ROM drive is £999 + p&p + VAT (£1185.57 inc). The 602X offers incredible value and is exactly half the price £499 + p&p + VAT (£598.07 inc). Please note that a SCSI card fitted with CDFS 2.2 is required. We can supply this for an extra £150.

MacFS is a utility to enable you to read and write data to Apple Macintosh discs. As the name suggests, it is a full filing system and so presents a Mac disc just like any other file system, such as ADFS or MSDOS. It will only read the newer Mac superdrive 1.4Mbyte floppies (on a suitably equipped Acorn RISC computer). It won't read the old, variable speed 800K floppies and it cannot be used on Acorn computers fitted with old-style 800k drives.

It can however be used on any machine equipped with a suitable SCSI interface to read other Mac drives such as dismountable or removable media (eg. Syquest) or optical discs. This makes it ideal for transferring large amounts of data between the two

For the first time, MacFS allows you to read and write to Apple Macintosh discs



on the disc icon. A filer window appears as normal, but showing Mac files.

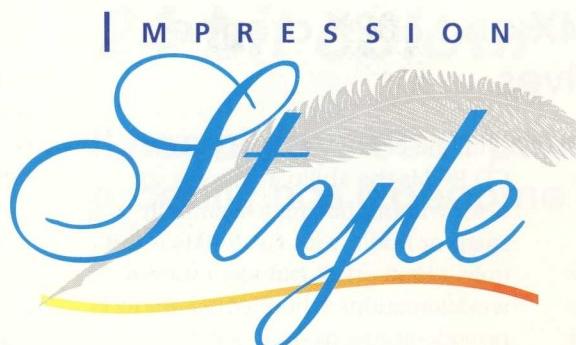
Mac files are often made of two parts, called the data fork and resource fork. For these files the MacFS program shows the file as a MacFile - and double clicking on this file then opens another window showing the two data and resource forks respectively.

machines (ie. in a desktop publishing environment). In use, it couldn't be easier. Simply plug your Mac hard disc into your SCSI interface and click

Price £99 + VAT (£116.32 inc)
Availability - May/June 1994.

- **Ctrl-A problem and solution**

We've made a few key changes in Impression Style and Publisher that some people have found rather infuriating. Examples are Ctrl-I and B for italic and bold and Ctrl-A for Select All. These have been changed as these key combinations have become de facto industry standards on other platforms (as well as being easy to remember). However, the Ctrl-A has caught a few people out when they've accidentally missed the A key and selected Ctrl-A by mistake - thus selecting all the text. The next key press will then cut the selected block of text, making it seem as if all your text just vanished for no reason. Of course it hasn't been lost - it has just been put on the clipboard, so if this occurs, just pressing Ctrl-V will restore your text by pasting it back from the clipboard. Alternatively you could define a style, that does nothing, to have Ctrl-A as a key short-cut.



- **Double right-click for fit to frame**

A non documented short cut for fit graphics to frame is to double-click with the Adjust mouse button in the frame to be altered. Be careful not to double-click on one of the graphic handles, as this does something else entirely.

- **Ctrl-Shift-R remove rulers**

This was always a short-cut for Impression but now works with the toolbars. If you find the toolbars getting in the way, Ctrl-Shift-R will make them disappear or re-appear.

- **Change colour to print bits**

A customer wanted to produce two variations of a letter - one to be sent and one for internal records, but wanted to put some additional text on the letter that didn't appear on the printed copy sent out. One answer to this is to create a style that alters only the text colour. For internal copies set the colour to black - for external copies one style edit is all that is required to make the text colour white - so it won't appear on the printed output.

- **Ctrl-Shift-Y file-type changing short-cut (ie. it swaps from single file mode to multi-file mode)**

Pressing this key combination will toggle (or swap) the method that Impression Style uses to store documents. ie. as a single file, or as a directory. To really complicate matters, Impression Publisher uses Ctrl-Shift-F3, for this same purpose !

Our Technical Support team answers a few of the more commonly asked questions about printers and printing

- **Paint output to TurboDrivers**

Due to a bug in !Paint, it does not support 24-bit printer drivers and so when you print from Paint to a TurboDriver - or from another sprite based drawing applications which uses the !Paint printing code - the output appears in monochrome only.

To print these sprites in colour, you should use another application that does not have this problem - eg Impression, ArtWorks, or perhaps easiest of all !Draw. The sprite will now print as expected.

- **Optional cassette mechanism for LBP-4 Laser Direct systems**

When the Canon LBP-4 is configured to use the video interface mechanism - as it is when used in the Laser

Direct system - it has very little in the way of 'intelligence'. The mechanism will default to taking paper from the front paper tray, even if you have a



The LBP-4 Laser Direct

cassette feeder attached. As such, when the printer is first switched on, it will show an error message **10EX NOT READY, if you have not put paper in the front tray. You can only tell it to take paper from the cassette mechanism by sending a specific code from the printer driver. This code is sent with the first print job you send if you have configured the printer mechanism to take paper from the cassette tray - see the printer Configurations dialog box of the Laser Direct software.

After the printer has received this code, the error message will not be displayed until the mechanism either runs out of paper, or you switch the printer off and then on again. (In other words, ignore the error message - it doesn't mean it.)

• HP TurboDrivers

Whilst the Hewlett Packard 500 range of printers are very competent, they do suffer from dark or muddled colours due to the mechanism applying too much ink - especially black - to a page.

The printed results tend to appear darker when compared to the screen display. To offset this effect we have included a command which will limit the amount of ink the printer places on the page. This is accessed quickly by pressing F12 and typing

```
*set printer$blackscale [N]
```

Where [N] is a number between 0 and 255 - 0 being no ink applied to the page, 255 being maximum black applied to the page. You could try a value of 128. eg,

```
*set printer$blackscale 128
```

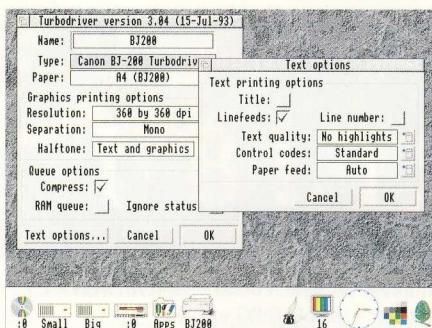
The paper you use with an ink-jet printer is also very important. Only use ink-jet compatible paper, preferably genuine HP ink-jet paper.

Do experiment with the Halftone options available in the RISC OS 3.1 versions of the TurboDriver. With the HP range of printers, we have found that when the resolution is set to 28 lpi with the Quad-Dot screen, the colours can appear more vibrant.

• Muddy browns

The TurboDrivers are 24-bit capable. In other words they are capable of reproducing 16.7 million colours. The standard Acorn printer driver is an 8-bit driver which can render only 256 colours maximum.

As you will appreciate, a certain amount of "fudging" is required by Acorn's printer driver when it is fed 24-bit information such as the colours from an ArtWorks file. For example, whilst there are thousands of possible reds in a 24-bit palette, there are only twenty or so available in a 256 palette, and one in a normal sixteen colour palette!



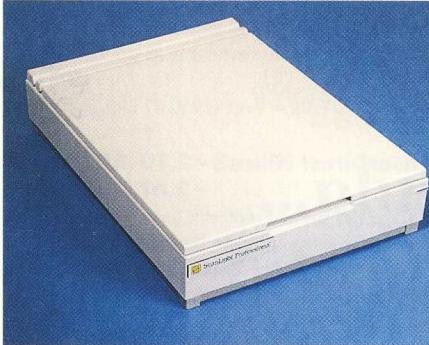
Setting up a Turbodriver

As far as the standard Acorn driver is concerned, it can group a huge range of reds and print them all in one hue. However, TurboDrivers distinguish between subtle shades of colour and print them out accordingly.

Another area which affects print output concerns the palette used to produce colours. The standard Acorn palette uses colours which are not of 100% saturation. For example, pure red on an RGB (Red, Green, Blue) scale has a value of 255.

If you look at the fill colour options within !Draw for red, you will see that its value is 221. This is not a pure red, and the TurboDrivers will see it as a red influenced with black - hence a darker red is printed. If you pull the slider bar up on the !Draw fill colour picker, so that the value of red is now 255, pure red is printed out by the TurboDriver.

While the TurboDrivers now mix colours correctly, it often means that colours appear darker when printed from the TurboDrivers than from the old 8-bit printer drivers. However, the benefit is that they can now render a vastly increased range of



ScanLight Professional

colours. If one compares the output possible from 24-bit programs such as Draw and ArtWorks or 24 bpp sprites, then there is no comparison between the old 8-bit drivers and that possible from the TurboDrivers.

• Photocopying & Laser Direct

The photocopy function of ScanLight/Laser Direct will only work with version 0.81 of ImageExtend and ScanLight 2.05. If you do not have ScanLight 2.05, you will have to use version 2.10 of the Laser Direct driver (the last RISC OS 2 driver) and version 2.01 of the ScanLight software.

• The Qume laser

The Qume laser printer has not been sold by Computer Concepts for two years now and unfortunately we are not able to offer support for it. Problems with the Qume printer mechanism should be directed to PCTech on (081) 206 1505. Interface repairs cannot be undertaken.

• And finally ...

Technical support is available to all registered users of Computer Concepts' products - hardware queries should be directed to Wild Vision if appropriate. The support team can be contacted on 0442 63933 between 1.30pm and 4.30pm, from Monday to Friday.

Before you do call however, please first make sure that you've got the latest version of the software (version numbers are given on the back page of this magazine). If you still get problems, then contact us and we'll try and sort it out.

If you still have reason to phone, please make sure you have details of version numbers, which version of RISC OS you are using etc. to hand. It would also help if you could be near/next to your computer when phoning to make 'hands-on' help easier.

Please note that Technical Support on all BBC Micro products is restricted to letter queries only.

Impression Publisher - 4.00

The latest and greatest addition to the DTP/WP range. Everything in Style, plus advanced features such as irregular shaped graphics frames, crop marks, page bleed, full colour support including PostScript separation of 24-bit and 32-bit CMYK images. Superior graphics control. TIFF support. 2Mb RAM minimum, 4Mb recommended. Hard disc recommended. £169 + VAT (£198.57 inc)

Impression Style - 3.03

The ultimate word processor. Well suited to short documents such as letters, right up to long documents such as books. Includes: spelling checker, thesaurus, dictionary mail-merge, auto-paragraph numbering, style sheets, graphics. Full on-line help. Fast, easy to use. 2Mb RAM recommended. £99.00 + VAT (£116.32 inc)

Impression borders disc

100 new frame border designs for Impression Publisher or Impression Style. £12.77 + VAT (£15.00 inc)

Equasor - 1.03

Mathematical equation creation and editing tool. Exports !Draw files. £49 + VAT (£57.57 inc)

ArtWorks - 1.53

The most powerful and flexible graphics illustration program for the Archimedes. Package includes 220 outline fonts. Files can be easily loaded into Impression for superb illustrated documents. 2Mb RAM minimum recommended. £169 + VAT (£198.57 inc)

Clip-Art CD

CD with over 700 ArtWorks drawings, over 100 24-bit full colour photographs, and a demo version of AudioWorks and sounds. £19 + VAT (£22.32 inc)

AudioWorks - 1.47

A general purpose audio sample editing application. Works with a variety of different file formats and can play back through the Archimedes sound system. £49 + VAT (£57.57 inc)

WordWorks - 1.05

The ultimate combined English thesaurus and dictionary, with definitions. Based on the well known Collins books. Hard disc required. £39 + VAT (£45.82 inc)

TurboDrivers - 2.10 (RISC OS 2) - 3.05g (RISC OS 3)

The fastest printer driver available for the Archimedes. Suitable for all current mono and colour Canon and Hewlett Packard inkjet printers (and laser printers) and Epson Stylus. Includes printer cable. 4Mb rec. for colour. £49 + VAT (£57.57 inc)

MacFS - 1.00

A utility to read and write to Apple Mac Super-Drive floppies, hard discs, Syquests and optical drives.

£99 + VAT (£116.32 inc)

JPEG and PhotoCD loaders

If you need some good 24 bit colour images, this software will allow you to load JPEG compressed files and PhotoCD images into Impression Style, Publisher and ArtWorks 1.5. Includes sample JPEG images.

£39.00 + VAT (£45.82 inc)

Compression - 1.17

Very fast automatic general purpose file compressing and decompressing utility. Acts like a filing system, compatible with all applications. £29 + VAT (£34.07 inc)

ColourCard Gold - 1.31 (series 1) - 2.31 (series 2)

Graphics accelerator expansion card. Provides much higher resolution, more colours, less flicker (higher refresh rates) and faster graphics drawing. 32,000 colour screen modes and video pass-through for Acorn modes. If your RISC OS desktop is becoming cluttered, how about upgrading to a screen size of 1600 pixels across?

£249 + £6 p&p + VAT (£299.62 inc)

ScanLight 256 - 2.06

The very popular hand-held scanner capable of scanning 256 grey-levels for photographic quality image capture. The best way to get pictures into your computer. Includes internal expansion card.

Versions available for all Acorn computers - so please specify model of computer when ordering.

A300/400/5000: £189 + VAT (£222.07 inc)

A30X0/4000

CC mini podule £199 +VAT (£233.82 inc)

HCCS Ultimate MicroPodule £229.00 + VAT (£269.07 inc)

ScanLight Video - 2.05

A combination of 256 greyscale scanner and 256 greyscale video digitising capability on a single card.

£220 + VAT (£258.50 inc)

ScanLight Professional - 2.06

Flatbed A4 256 grey-level scanner. Requires SCSI interface card (available as optional extra).

£595 + £10 p&p + VAT (£710.87 inc)

*Now
15/8/94*

LaserDirect HiRes8 - 2.10 (RISC OS 2) - 2.61 (RISC OS 3)

8 page per minute, 600 dpi, laser printer. Direct drive from the Archimedes for the fastest printing speeds of any Archimedes laser printer. 2Mb RAM minimum, 4Mb RAM recommended.

£1099 + £10 p&p + VAT (£1303.07 inc)

LaserDirect HiRes4 - 2.10 (RISC OS 2) - 2.63 (RISC OS 3)

Package includes 4 page per minute, 600 dpi laser printer with interface board and software. (Note: For existing owners of a standard Canon LBP-4 Plus printer the Interface board and software are available separately - please ask for details.)

£799 + £10 p&p +VAT (£950.57 inc)

Canon BJC-600 colour printer

The new low cost A4 colour printer. Designed specifically to get the best possible results on plain paper. 360dpi, separate CMYK inks, combined with the RISC OS 3 TurboDrivers this is quite simply the best colour printer in the price range.

£469 + £10 p&p + VAT (£562.82 inc)

Canon BJ-200 mono printer

Fast, 360 dpi, inkjet printer. Includes TurboDriver software to provide the fastest inkjet printing of any printer in its class. Printer has built-in sheet feeder and power-supply. Includes printer cable.

£229.00 + £10 p&p + VAT (£280.82 inc)

Canon BJ-230 mono printer

Same as above except takes A3 paper. £289.00 + £10 p&p + VAT (£351.32 inc)

Pioneer DRM-604X and 602X fast multi-disc CD-ROM drives

Two times (602X) or four times (604X) faster than conventional CD ROM drives. Holds 6 CDs and includes automatic disc changer. PhotoCD compatible. Includes driver software for all Acorn compatible SCSI interface cards, compatible with AUN networks.

604X - £999 + £10 p&p + VAT (£1185.57 inc)

602X - £499 + £10 p&p + VAT (£598.07 inc)

Eagle M2 - 1.10 (TakeTwo)

The ultimate multimedia product. Full video capability - digitises still images and Replay movies, audio sampling and playback, midi capability and much more. Bundle price including AudioWorks, ScanLight software and the Eidos, Replay compatible, real-time video compression software. £329.00 + £6 p&p + VAT (£393.62 inc)

Midi Max

An Acorn compatible midi expansion card with support software. On board buffering. £69.00 + £6 p&p + VAT (£88.12 inc)

Version numbers of current software releases relating to the product are shown where appropriate.

Please note that software upgrades are only available to registered users of Computer Concepts and Wild Vision products.

E&OE. Prices and descriptions are subject to change without prior notice.